

From: Joe Falcone
To: Microsoft ATR
Date: 1/26/02 1:28am
Subject: Microsoft Settlement

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I worked as Director of Windows Products Engineering for Borland International (later to be known as Inprise) in 1997 and 1998. During that period, I was responsible for "the Microsoft relationship" and worked with Borland's attorneys on contracts and other matters with Microsoft. I was asked to contribute my thoughts about Microsoft's anti-competitive behavior during this time, and I wrote the following memo in April of 1998. Its primary message is that Microsoft has never been a proponent of innovation, nor a particularly keen innovator. The same can also be said of the other monopoly force in the PC industry, Intel. However, a big difference between the two has been Intel's strict observance of the law and Microsoft's attempts to circumvent the law. While I was at Borland, several times Microsoft proposed that we sign agreements that forced us to recommend and distribute Microsoft's Internet Explorer to our customers - we ALWAYS red-lined these parts of the agreements.

The bottom line is that this probe could have gone further. Prior to Borland, I spent 11 years with Digital Equipment, now a part of Compaq. During that period, I was exposed to Microsoft's tactics in negotiating licensing of their operating system software to PC manufacturers. You've seen testimony of some PC vendors about this. Microsoft has been able to deliver flawed software to these manufacturers while dictating terms that force the manufacturers to assume most of the technical support burden.

The current remedy being proposed does not go far enough, particularly with a company that has made an art of working around the law. I was very disappointed that a structural remedy was not part of the solution, and I hope that the oversight of the proposed remedy is strict and vigilant.

Thank you,
Joe Falcone
Half Moon Bay, California

A few things that have gone wrong in the PC industry...

PC's have never been high tech.

The operating systems are years behind the times in features, scalability and robustness. As Microsoft tries to prove the enterprise-quality of their software, this has become obvious. No Microsoft software is ready for 7x24 operation. When Microsoft made their big pitch for the Enterprise, they committed themselves to run Microsoft on their own products - Windows NT Server, SQL Server, Back Office, etc. Word on the street is that Microsoft is too big to run themselves on their own products. The obvious solution is to go with the flow and put Oracle's DBMS in - but Oracle won't sell to Microsoft for competitive reasons. So this is one of the reasons why the rumor circulated that Microsoft was going to buy Informix (it still could happen). Although this would allegedly buy Microsoft an enterprise-class database engine, the classic Informix relational database product is old (it's been compared to Oracle 6 - two generations behind Oracle's current product). Microsoft is between a rock and a hard place.

Some number of Microsoft products are not Y2K safe (Year 2000). And any strong mention of this in public is suppressed - an academic who was collecting Y2K software problem reports on a web site was sent a "cease and desist" letter by Microsoft's legal department. Only Microsoft knows what is good for Microsoft.

PC hardware is crude and primitive. I/O buses are slow, difficult to expand, and tricky to design for. For example, some first generation PCI option cards will not work with recent PCI motherboards. This is because the PCI spec was driven largely by Intel to fulfill their agenda. Alternative views are co-opted - Digital's PCI bus committee rep was hired away by Intel early in the program.

The only time Intel had the world's fastest microprocessor was when they had the world's first and only microprocessor. Once other vendors entered the game, the mediocrity of Intel's architectures came to the forefront. The fact is that Intel is a relative newcomer to the computer architecture field. IBM, UNISYS, Digital and others have been designing computers since the 50s. With that experience comes a level of maturity and a portfolio of patents that make it

difficult for others to achieve "best-in-class" performance. Today, nearly every RISC architecture in production (Alpha, HP-PA, PowerPC, MIPS, SPARC), is faster than the fastest Pentium-II. Now that AMD, National Semiconductor, and IDT have foundry agreements with IBM, all of them may get access to the high-speed copper interconnect chip process which IBM innovated and may have a substantial lead in due to its own intellectual property. In other words, within a year or so, Intel may not be making the fastest x86 processor.

Microsoft and Intel have tried to restrict what the PC manufacturers can build thru acquisitions, intellectual property (patents), and their PC 9x initiatives. However, these are principally driven by Microsoft and Intel to fulfill their agenda. The original reason to have these initiatives was to try to guarantee for Microsoft that the manufacturers were sticking to a single spec of base PC functionality for their products, rather than have them go off and implementing new buses, graphics, etc. Of course, the result is an industry with no innovation and no variety. All the products are the same. The original objective was to enforce PC 9x compliance by withholding logo branding (Intel Inside or Designed for Windows xx) if the product did not meet PC 9x. It's not clear to what degree they've been able to do that.

The latest incarnation of the initiative is PC 99. Adaptec is a participant in PC 99. Apparently Microsoft in one of their playing god moods decided to remove SCSI hard disks as a supported technology in PC 99. The idea was to replace it with IEEE 1394. The Adaptec folks had to point out that there are virtually no disk drive products available using 1394 as an interface.

Earlier versions of PC 9x made no mention of mobile systems. Even the current mobile systems spec of PC 99 is considered grossly inadequate to the point that a consortium of notebook manufacturers (as reported recently) is banding together to form their own standards group.

Now Intel is using their intellectual property (primarily patents on the Pentium-II interface bus) to restrict who can build chipsets for PCs. Right now, you can really only buy Pentium-II chipsets from Intel. Intel has threatened to sue other companies who enter this field. Traditionally, the pinout of a non-military-classified chip sold on the open market has been a public spec. If you think about it, where would the computer industry be today if you could BUY a chip on the open market, but you couldn't INTERFACE it to anything without a LICENSE from the chip manufacturer. This, in fact, was the problem with the IBM MicroChannel bus. You could build MicroChannel option cards, but you needed to register them with IBM and get an ID for your card (for autoconfiguration) before you sold it. MicroChannel failed as a result, even though it had PCI-class technology years ago (the PCI connector is in fact a MicroChannel-style connector).

Intel's argument is that they are no longer selling "chips" as such, but computer system modules for a patented, proprietary bus (Slot 1 et al). For this there is precedent of course. All of the big computer manufacturers used proprietary buses, for which you generally had to get licenses to build peripherals for. The problem is the tradition and vitality of the PC industry was built around technology that was not under intellectual property restrictions. Now you can only buy chipsets from Intel. The chipsets effectively determine the basic features of the PC, including power management in the case of notebooks. As noted earlier, the notebook manufacturers are already blanching at the thought of having their features, such as power management, determined solely by what Intel's Pentium-II mobile chipsets deliver.

As Intel's standards (Slot 1, PCI, AGP, I2O) become established, it becomes easy for Intel to dominate each segment, either solely or collusively with another vendor, such as the case with the intelligent I2O I/O bus and Wind River Systems. When you purchase the i960 RP processor (the heart of the I2O spec), you get the IxWorks I2O-compatible Real Time Operating System by Wind River Systems (License included with processor). This event sent shockwaves thru the Real-Time Operating System industry as it would guarantee a stream of revenue for Wind River once I2O-enabled systems began shipping in volume.

As Microsoft's initiatives have spread into other areas, such as palmtop

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computing, we see the same control. In the Windows CE area, the hardware specification is controlled by Microsoft. Manufacturers build to the Microsoft spec and Microsoft delivers executable code to the manufacturers. No source is available and Microsoft develops all the drivers. Is it any wonder that all CE products look the same? The only concession that Microsoft has granted has been the support of different microprocessors, insisted upon by the aggressively competitive Japanese contenders in the high-MIPS-per-milliwatt category. Everyone in the CE space is losing money, everyone except for Microsoft who is apparently charging more for CE than for Windows 95, basing this on the fact that they've architected the entire product, etc, etc. In fact, what Microsoft has done is architect the innovation OUT of the product by controlling it too strictly and not allowing their partners to innovate.

Their goal is to be the mobile communication and computing platform of choice when we get to the point of convergence between palmtops, notebooks, wireless networks, and cell phones - a sort of Pilot on steroids. The most interesting competition going on right now is that between CE and the Pilot, especially now that IBM is backing and reselling the Pilot. Unlike the past, it is clear that anti-competitive actions by Microsoft in that market will not go unnoticed.

All of this information is publicly verifiable by hitting the right web sites with the right search keywords. Even the rumors have been reported in one place or another. Just haven't seen anyone put the whole picture together. Enjoy!